

SUMMA Cutter Knife Blade Guide

General Info

The blades are used to cut various types of soft pliable materials. Standard “sign” vinyl being the most common but it is also possible to cut thicker materials using specific blades and accessories.

Compatibility

There are two styles of blades. The first are Drag knife blades which swivel around corners while staying pressed in the material. The second type is Tangential blades which lift and cut using a motor for correct orientation.

Drag Knife Blades

Currently, Summa offers 3 Drag knife blades.

391-360	391-231	391-163
Standard 36° Blade	Rhinestone 50° Blade	Sandblast 60° Blade
		

Tangential Knife Blades

Currently, Summa offers 5 Tangential knife blades.

390-534	390-552	390-551	390-560	390-550
Standard 36° Blade	Ceramic 36° Blade	Double Edge 36° Blade	Single Wedge 45° Blade	Sandblast 60° Blade
				

Blade Specifications

When picking a blade to cut your material you always want to try and use the lowest degree blade (shallowest angle). As example:

while you might be able to cut vinyl with a 50° blade, you would get better results with a 45°

blade and still even better results with a 36° blade (assuming the thickness of the material did not exceed the maximum listed for that blade).

Cutable material thickness in mil (thousands of an inch)	391-224 36° Drag Blade	391-231 50° Drag Blade	391-163 60° Drag Bade	390-549 36° Tang Blade	390-552 36° Ceramic	390-551 36° Double Edge	390-560 45° Dual Wedge	390-560 60° Tang Blade
Maximum thickness (mil)	10	10	30	10	10	10	39	47
Max Flex Thickness (mil)	10	10	30	10	10	10	39	47

Material Applications

Material thickness is the first specification to determine which blade to use. If material thickness is unknown use this recommended chart.

	D-Series			T-Series				
	391-224 36° Drag Blade	391-231 50° Drag Blade	391-163 60° Drag Bade	390-549 36° Tang Blade	390-552 36° Ceramic	390-551 36° Double Edge	390-560 45° Dual Wedge	390-560 60° Tang Blade
Standard Vinyl								
Engineering Reflective								
Sandblast (Monument)								
Rhinestone								
Heat Press (Apparel)								
Automotive (Paint Protect)								

Adjustments

Setting the physical blade depth and testing the pressure varies depending on the machine. See your user manual for specific details and menu structures. The user manuals are available on our website ...

Additional information specific per blade.	391-224 36° Drag Blade	391-231 50° Drag Blade	391-163 60° Drag Bade	390-549 36° Tang Blade	390-552 36° Ceramic	390-551 36° Double Edge	390-560 45° Dual Wedge	390-560 60° Tang Blade
Drag Knife								

Holder (Black)									
Drag Knife Holder (Gold)									
Tangential Knife Holder									
Tang Nose Piece (Silver)									
Tang Nose Piece (Black)									
Knife Offset	0.43	0.50	0.90	___	___	___	___	___	
Overcut	0.1	0.5	0.1	0.1	0.1	0.1	0.1	0.1	
Needs Knife Calibration	No	No	No	Yes	Yes	Yes	Yes	Yes	
Knife Pressure	Varies by material type and thickness. See manual on how to adjust the blade depth and pressure.								
Cutting Speed (Velocity)	Varies by material type and thickness. If the material is thicker or thinner than standard vinyl, slow down the Velocity.								

Warranty

Blades are not covered under the warranty of the machines. They are a consumable and both their functionality and usable life depend on the user, materials, and settings.

Maintenance

Apart of the obvious maintenance (e.g. keeping the tool clean), no special treatments are required.